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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,904	06/24/2003	David J. Schuessler	33915-03410	4886

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EXAMINER	
MACKEY, JAMES P	
ART UNIT	**PAPER NUMBER**
1722	

DATE MAILED: 05/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/603,904	SCHUESSLER, DAVID J.	
	Examiner	Art Unit	
	James Mackey	1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 February 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4,21 and 39-48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,21 and 39-48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 39, 43 and 48 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The original disclosure does not adequately describe the vent path as having a lip at an interior end, as is claimed in claims 39 and 43 (note that the amendment submitted on 27 February 2006 refers to claims 39 and 43 as "withdrawn"; however, these claims have not been subject to a restriction requirement and thus cannot be withdrawn, and therefore these claims remain pending).

The original disclosure does not adequately describe "a vent path extending into the said cavity utilizing concentric openings and parallel vapor lines from the mold to the exterior of the machine, such that gas may be circulated through the mold" as is claimed in new claim 48. While the original specification discloses "circular sprue tube 24 having an outside diameter equal to the diameter of circular opening 29" (page 8, lines 10-11) to provide a circular sprue opening 26, the original disclosure does not adequately describe "concentric openings" as is claimed in new claim 48. Moreover, while the original specification discloses a vacuum connection 65 and a material connection tube 66 in the "same arm" (page 6, lines 15-20), and Figure 1 shows lines 65 and 66 to be parallel in arm 55a, the original disclosure does not

adequately describe the vent path having parallel vapor lines from the mold to the exterior of the machine as claimed. Also, while the original specification discloses serial vacuum tubes 27, 28 connecting vacuum connection 65 (via vacuum opening 35) to the sprue tube 24 for removal of solvent vapors through the vent path, the original disclosure does not adequately describe that "gas may be circulated through the mold" as is claimed in new claim 48.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1, 2, 4 and 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over British Patent Specification 1,271,785 (Figure 1) in view of any one of Payne (U.S. Patent 5,316,701; col. 5, lines 53-56), Pitavy et al. (U.S. Patent 4,764,322; col. 4, lines 38-41), Lemelson (U.S. Patent 4,285,903; Figs. 3-5; col. 5, lines 7-10 and 34-53; col. 6, lines 53-60) and Manchak, Jr. et al. (U.S. Patent 5,156,818; Figure 1; col. 5, lines 39-48; col. 7, lines 63-68).

British '785 (equivalent to DE 20 15 966, cited by Applicant) discloses a rotational molding system substantially as claimed, comprising a multi-axis rotational molding machine

(page 3, lines 11-12) mounting a two-part mold 1a, 1b each mold part having a hemispherical cavity shape and cooperating to form a vacuum-tight seal along mating surfaces 3a, 3b, the interior of the mold inherently being "sized to allow for the thickness of a liner" (as claimed in claim 1); a vent path 6 extending into the mold cavity; a vacuum path fluidly connected to the vent path and leading to a vacuum source means 11; and a solvent removal path fluidly connected to the vent path and leading to a solvent separator/collector means 14, wherein the vacuum path means and the solvent removal path means are in part the same path means (as clearly shown in Figure 1). British '785 does not disclose a molding material feed path means fluidly connected to both the interior cavity and an exterior of the mold.

Each of Payne '701, Pitavy et al., Lemelson '903 and Manchak, Jr. et al. disclose a rotational molding system including a molding material feed path means fluidly connected to the mold cavity and an exterior of the mold for feeding the molding material into the mold cavity from an exterior supply. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify British '785 by providing a molding material feed path means, as disclosed in any one of Payne '701, Pitavy et al., Lemelson '903 and Manchak, Jr. et al., in order to facilitate the supply of molding material into the mold cavity, and to enable automatic operation of the rotational molding system.

With regard to the "solvent collection path" being a "solvent condenser path" as claimed in claim 41, it would have been obvious to a skilled artisan (if not in fact intended) to have provided the solvent separator of British '785 as a condenser in order to perfect the separation of the solvent from the gases being removed from the mold cavity, especially considering that a condenser is a notoriously well known means for separating solvent vapors from a gas.

6. Claims 21 and 44-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over 1,271,785 (Figure 1) in view of any one of Payne (U.S. Patent 5,316,701; col. 5, lines 53-56), Pitavy et al. (U.S. Patent 4,764,322; col. 4, lines 38-41), Lemelson (U.S. Patent 4,285,903; Figs. 3-5; col. 5, lines 7-10 and 34-53; col. 6, lines 53-60) and Manchak, Jr. et al. (U.S. Patent 5,156,818; Figure 1; col. 5, lines 39-48; col. 7, lines 63-68), and further in view of any one of Gilman, Jr. (U.S. Patent 4,836,963; the abstract; col. 5, lines 18-19), Formo (U.S. Patent 3,652,368; col. 2, line 31; col. 6, lines 1-6 and 14-17), Lemelson (U.S. Patent 4,043,721; col. 1, lines 51-60; col. 2, lines 45-54; col. 4, lines 50-58; col. 5, lines 37-67) and Payne (U.S. Patent 6,511,619; col. 5, lines 19-29).

British '785 (equivalent to DE 20 15 966, cited by Applicant) discloses a rotational molding system substantially as claimed, comprising a multi-axis rotational molding machine (page 3, lines 11-12) mounting a two-part mold 1a, 1b each mold part having a hemispherical cavity shape and cooperating to form a vacuum-tight seal along mating surfaces 3a, 3b; a vent path 6 extending into the mold cavity; a vacuum path fluidly connected to the vent path and leading to a vacuum source means 11; and a solvent removal path fluidly connected to the vent path and leading to a solvent separator/collector means 14, wherein the vacuum path means and the solvent removal path means are in part the same path means (as clearly shown in Figure 1). British '785 does not disclose a molding material feed path means fluidly connected to both the interior cavity and an exterior of the mold (claims 21 and 47), and does not disclose means for inserting liner material into the mold being fluidly connected to both an interior and an exterior of the mold (claim 21) or a liner that coats the inside surface of the mold to make it seamless (claim 47).

Each of Payne '701, Pitavy et al., Lemelson '903 and Manchak, Jr. et al. disclose a rotational molding system including a molding material feed path means fluidly connected to the mold cavity and an exterior of the mold for feeding the molding material into the mold cavity from an exterior supply. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify British '785 by providing a molding material feed path means, as disclosed in any one of Payne '701, Pitavy et al., Lemelson '903 and Manchak, Jr. et al., in order to facilitate the supply of molding material into the mold cavity, and to enable automatic operation of the rotational molding system.

Each of Payne '701, Gilman, Jr. et al., Formo, Lemelson '721 and Payne '619 discloses a biaxial rotational molding system including means for inserting at least two separate materials into the mold. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify British '785 by providing the material inserting means as a means for inserting at least two separate materials into the mold, as disclosed in any one of Payne '701, Gilman, Jr. et al., Formo, Lemelson '721 and Payne '619, in order to form a multi-layer product, with the first material introduced into the mold constituting a seamless liner which coats the inside surface of the mold and into which the second material is subsequently introduced. Note that the specification discloses the "means" of the claimed "means for inserting a liner material" as being the same means as the claimed "means for inserting a molding material" (see the specification at page 6, lines 16-20, and page 6, line 26 through page 7, line 1), and therefore the means for inserting at least two separate materials into the mold as described in any one of Payne '701, Gilman, Jr. et al., Formo, Lemelson '721 and Payne '619 is the same as or equivalent to the

disclosed means of the claimed "means for inserting a molding material" and "means for inserting a liner material".

With regard to the solvent collection means being a solvent condenser means as claimed in claim 45, it would have been obvious to a skilled artisan (if not in fact intended) to have provided the solvent separator of British '785 as a condenser in order to perfect the separation of the solvent from the gases being removed from the mold cavity, especially considering that a condenser is a notoriously well known means for separating solvent vapors from a gas.

7. Applicant's arguments filed 27 February 2006 have been fully considered but they are not persuasive.

Applicant argues that the interior of the mold of British '785 is not "sized to allow for the thickness of a liner to coat an inside surface of said mold" as is claimed in claim 1; however, the size of the mold cavity of British '785 clearly has a size permitting two layered materials (i.e. a liner material and a molding material) to be inserted therein. While British '785 does not explicitly describe that the molding apparatus is used in such a manner that a liner material as well as a molding material (or even merely two layered materials) are introduced into the mold cavity, such is not required by claim 1 which merely requires that "the interior of said mold is sized" to be capable of being used "to allow" a liner material as well as a subsequently supplied molding material to be introduced into the mold cavity. British '785 clearly has a mold cavity having a size, and the size of the mold cavity shown and described in British '785 is clearly capable of being used in such a manner; note that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations, *Ex parte*

Masham, 2 USPQ2d 1647. Purpose to which apparatus is to be put and expression relating apparatus to contents thereof during intended operation are not significant in determining patentability of an apparatus claim, *Ex parte Thibault*, 164 USPQ 666. The manner or method in which a machine is to be utilized is not germane to the issue of patentability of the machine itself, *In re Casey*, 152 USPQ 235.

Applicant argues that the Examiner "does not cite any teaching or suggestion in either the '785 patent or other prior art in support" of the contention that it would have been obvious to a skilled artisan (if not in fact intended) to have provided the solvent separator of British '785 as a condenser in order to perfect the separation of the solvent from the gases being removed from the mold cavity, especially considering that a condenser is a notoriously well known means for separating solvent vapors from a gas". However, a "condenser" is defined as "an apparatus used to condense vapor", clearly notoriously well known for use in separating a solvent vapor from a gaseous mixture, and a skilled artisan, applying only knowledge well known to those of ordinary skill in the art, would have been motivated to utilize such a notoriously well known condenser as the solvent separator means 14 of British '785 to perform the function of separating the solvent from the gases withdrawn from the mold cavity as desired in British '785. Note that references are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures, *In re Bozek*, 163 USPQ 545; see also *In re DeLisle*, 160 USPQ 807.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rees (U.S. Patent 3,925,530) discloses a rotational mold having a release coating. Rempel (U.S. Patent 2,469,892; Figures 7-8; col. 5, lines 5-25) discloses a rotational mold

wherein a "preliminary skin-coating 32" is deposited before formation of the product G. Boeckeler (U.S. Patent 3,850,368) discloses a rotational mold having a liner 90.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Mackey whose telephone number is 571-272-1135. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

James Mackey
Primary Examiner
Art Unit 1722
5/5/06

jpm
May 5, 2006